REMARKS

By this Response, claim 5 has been amended. Accordingly, claims 1-15 are currently pending in the application.

In view of the above amendment and following Remarks, Applicants respectfully request reconsideration and timely withdrawal of the pending rejections for the reasons discussed below.

CLAIM OBJECTIONS

On page 2 of the Office Action, the Examiner objected to claim 5 and asserted that the term "irregular" in "irregular zig-zag pattern" is a broad term and will be interpreted the same as "regular zig-zag pattern" in claim 4. In light of the foregoing objection, Applicants have amended the term "irregular" to be "non-uniform," which has an entirely different meaning than the term "regular." Therefore, Applicants respectfully request that the objection of claim 5 be removed.

REJECTIONS OF CLAIMS 10-15 UNDER 35 U.S.C. §102(b)

In the Office Action, at page 2, claims 10-15 were rejected under 35 U.S.C. §102(b) as being anticipated by Ohtani et al., U.S. Patent No. 6,303,963 (hereinafter, "Ohtani") "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 84 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Ohtani does not disclose all of the elements recited in claims 10-15 of the present application; therefore, Applicants respectfully traverse this rejection for at least the following reasons.

Claim 10 of the present application recites: "A flat panel display having a matrix-type array of sub-pixels ... wherein the driving thin film transistor comprises semiconductor

channels which are derived from a semiconductor layer, and heterogeneous straight lines are separated from each other on the semiconductor layer, and wherein each of the semiconductor channels comprises at least one of the heterogeneous straight lines."

In a non-limiting example and for purposes of discussion, heterogeneous straight lines, which have electrical characteristics, e.g., conductivity, that are different than other areas of a semiconductor, may be formed when a region of the semiconductor is subject to laser beam irradiation. Application, page 2, lines 5-20.

Ohtani does not disclose "driving thin film transistor comprises ... heterogeneous straight lines," as recited in claim 10 of the present application. Specifically, Ohtani does not teach or suggest a semiconductor having heterogeneous straight lines. Instead, Ohtani discloses forming a semiconductor by crystallizing the semiconductor film using a catalytic element and then removing the catalytic element, thereby resulting in extremely small fluctuations in electrical characteristics such as a threshold voltage. Thus, although Ohtani discloses forming the semiconductor circuit, such disclosure does include or relate to the formation of heterogeneous straight lines.

The Examiner claims that "heterogeneous straight lines" are shown in Figs. 2D, 6A-6E, and 7A-7D of Ohtani; however, Applicants assert that it is impossible to determine the existence of the heterogeneous lines based on these figures. Figures can only anticipate claims if they clearly show the structure which is claimed. MPEP § 2125. The figure must show all the claimed structural features and how they are put together MPEP § 2121.04. The figures cited by the Examiner clearly do not show the heterogeneous straight lines and the arrangement of the semiconductor channels with respect to the heterogeneous straight lines.

Applicant asserts that the heterogeneous straight lines are not inherently present in Ohtani and the Examines has not provided a basis in fact and/or technical reasoning to reasonably support that such lines are inherently present. "To establish inherency, the

extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted) "In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy,* 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)

Therefore, for at least the reasons discussed above, independent claim 10 patentably distinguishes over Ohtani. Accordingly, it is respectfully requested that claim 10 be allowed.

Claims 11-13 depend from independent claim 10 and are patentable for at least the reasons discussed above. Accordingly, it is respectfully requested that claims 11-13 be allowed.

Similarly, claim 14 of the present application recites: "A flat panel display having a matrix-type array of sub-pixels ... wherein the driving thin film transistor comprises semiconductor channels which are derived from a semiconductor layer, and heterogeneous straight lines are separated from each other on the semiconductor layer, and wherein the semiconductor channels are positioned between the heterogeneous straight lines."
As discussed above, Ohtani does not teach or suggest a semiconductor having heterogeneous straight lines and it is impossible to determine the existence of the heterogeneous lines based on figures 2D, 6A-6E, and 7A-7D. Therefore, for at least the reasons discussed above with respect to independent claim 10 of the present invention, it is respectfully suggested that independent claim 14 patentably distinguishes from Ohtani

Claim 15 depends from independent claim 14 and is patentable for at least the reasons discussed above. Accordingly, it is respectfully requested that claim 15 be allowed.

REJECTIONS OF CLAIMS 1-9 UNDER 35 U.S.C. 103(a)

In the Office Action, at page 4, claims 1-9 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani in view of Komiya et al., U.S. Patent No. 6,750,926 B2 (hereinafter, "Komiya"). Neither Ohtani nor Komiya, alone or in combination, teaches or suggests all of the claimed feature of claim 1 of the present invention; therefore, Applicants respectfully traverse this rejection for at least the following reasons.

The Examiner cites Ohtani as disclosing: "... driving thin film transistor comprises semiconductor channels which are derived from a semiconductor layer, and heterogeneous straight lines are separated from each other on the semiconductor layer ...," which is recited in claim 9 of the present application. As discussed above, Ohtani does not teach or suggest a semiconductor having heterogeneous straight lines and it is impossible to determine the existence of the heterogeneous lines based on figures 2D, 6A-6E, and 7A-7D.

Komiya does not solve the deficiencies discussed above with respect to Ohtani. Similar to Ohtani, Komiya does not teach or suggest a semiconductor having heterogeneous straight lines.

Further, for purposes of discussion, even assuming that the heterogeneous straight lines of claim 1-9 may correspond to a line connecting several channel portions crystallized by a low energy periphery portion of laser light disclosed in Komiya, Komiya does not teach or suggest any relationship between the respective channel portions crystallized by the low energy periphery portion of laser light. Komiya only discloses an angular relationship between the gate signal line and the channel portions crystallized by the low energy periphery portion of laser light in each thin film transistor (TFT). Thus, Komiya is much different from

claims 1-9 of the present application, which discloses a relationship between the heterogeneous straight lines and channels in a plurality of TFTs.

Applicants assert that the combination of Ohtani and Komiya is incorrectly based on hindsight reconstruction. "One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." In re Fine, 837 F.2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988). The Examiner's conclusory statement that "it would have been obvious to one ordinary skill in the art to have an imaginary line connecting the semiconductor channels of one column is not parallel to the heterogeneous straight lines" does not satisfy the Examiner's burden to present actual evidence and make particular findings related to the motivation to combine the teachings of the references. In re Kotzab, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); In re Dembiczak, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). The Examiner must explain the reasons that one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious. In re Rouffet, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998).

Therefore, for at least the foregoing reasons, neither Ohtani nor Komiya, alone or in combination, teaches or suggests all of the claimed feature of claim 1 of the present invention. Accordingly, it is respectfully requested that claim 1 be allowed.

Claims 2-9 depend from independent claim 1 and are patentable for at least the reasons discussed above. Accordingly, it is respectfully requested that claims 2-9 be allowed.

CONCLUSION

It is respectfully requested that this amendment be entered prior to the examination of the above-referenced patent application. Applicants respectfully submit that the claims as presented are patentable over the prior art of record, request reconsideration and withdrawal of the objections and rejections to the claims, and request that the claims be passed to issuance. If the Examiner desires any additional information, the Examiner is invited to contact applicants' attorney at the telephone number listed below to expedite prosecution.

Respectfully submitted,

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